

## PATENT

## IN THE SPECIFICATION

Please replace the following paragraphs of the specification with the following amended paragraphs:

Page 5, the paragraph beginning with the words "FIG. 1 is a diagram..."

FIG. 1 is a diagram of a radio network 100 comprising a number of cells 102. Each cell 102 corresponds to a particular geographic area and is served by an associated base station (not shown in FIG. 1 for simplicity). A mobile switching center (MSC) 110 couples to and serves a number of base stations. MSCs 110 in radio network 100 couple to each other and to a public switch telephone network (PSTN) 112 that supports communication with conventional telephone systems. The cells associated with each MSC 110 are typically divided into one or more regions 106, grouped together by an entity called a Base Station Controller (BSC) in cdma2000 and GSM and a radio network controller (RNC) in W-CDMA. For the examples shown in FIG. 1, region 106a includes cells 102a through 102g [[h]]. For packet calls in cdma2000, each of the BSCs (e.g., a BSC for region 106a) has an entity for Packet Conversion Function (PCF) and the coverage area of the BSC is the PCF coverage area. For packet calls in GSM and W-CDMA, there may be many BSCs or RNCs in the coverage area of a new network entity Serving GPRS Support Node (SGSN), which is a subset of the coverage area of the associated MSC.

Page 5, the paragraph beginning with the words "FIG. 2 is a diagram..."

FIG. 2 is a diagram of a portion of radio network 100 and the registration for a mobile station 106 located in the boundary area of a number of cells 102. Initially, mobile station 106 is in the coverage area of base station 104a (e.g., R-TMSI zone 1) and registers with this base station, as indicated by the dashed line. Thereafter, mobile station 106 may move into the coverage area of base station 104b (e.g., R-TMSI zone 2) and also registers with this base station. Mobile station 106 may further move into the coverage area of base station 104d (e.g., R-TMSI zone 4), or some other base station, and may register with the base station serving this coverage area. Mobile station 106 may thereafter return to one of the zones it [[is]] has previously

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registered. The registration scheme of the invention reduces the amount of registration required by mobile station 106 as it moves about radio network 100, as described in further detail below.

Page 5, the paragraph beginning with the words "Back at step 312,..."

Back at step 312, if the mobile station has re-entered a registration zone that it has already, and is still currently, registered (instead of a new registration zone), the mobile station ~~initialize~~ initializes the timer-based registration count to the entry timer value for the registration zone it just entered, at step 322. This action results in the mobile station attempting to re-register with the base station of the current active zone prior to the registration expiration time. The mobile station then deactivates the entry timer for the registration zone it just entered, at step 324.

Page 10, the paragraph beginning with the words "In accordance with..."

In accordance with an embodiment of the invention, the time-out value to be used for the R-TMSI zone that the mobile station has just left to enter into the new R-TMSI zone may be provided by the base station for the new R-TMSI zone. The frequency with which the registrations zones might change depends on the size and topology of the cells, shadowing effects, and how the network designer lays out the neighboring zones. Based on these conditions, the above feature gives a base station flexibility to choose ~~[[chose]]~~ a time-out value depending on the signal condition within the cell as compared to the signal condition from the cell the mobile station is moving from.